MECHANICAL DATA SHEET: VESSEL

PLANT ITEM No. ***24590-LAW-MV-RLD-VSL-00003***

Project	***RPP-WTP***	P&ID	***24590-LAW-M6-RLD-P0001***
Project No	***24590***	Process Data Sheet	***24590-LAW-MVD-RLD-00003***
Project Site	***Hanford***	Vessel Drawing	***24590-LAW-MV-RLD-P0002***
Description	***Plant Wash Vessel***		

R1017875

Reference Data

Charge Vessels (Plant Item Numbers)	***Not Applicable***
Pulsejet Mixers (Plant Item Numbers)	***Not Applicable***

ISSUED BY RPP-WTP PDC DLS 11/26/03 INIT DATE

Design Data

Quality Level	***CM***	Fabrication Specs	***24590-WTP-3PS-MV00-TP001***		
Seismic Category	***SC-3***	Design Code	***ASME VIII Div 1***		
Service/Contents	***Wash/Drain Effluent***	Code Stamp	***Yes***		
		NB Registration	***Yes***		
Design Specific Gravity	***1 to 1.38***	Weights (lbs)	Empty	Operating	Test
Operating Volume gal	***23400***	Estimated	**70,100**	**351,200**	**285,500**
Total Volume gal	***25780***	Actual *			

Inside Diameter	inch	***192***			Wind Design	***Not Required***	
Length/Height	inch	***185 (See Vessel Drawing)***			Snow Design	***Not required***	
		Vessel Operating	Vessel Design	Coil/Jacket Design	Seismic Design	***24590-WTP-3PS-FB01-T0001***	
						24590-WTP-3PS-MV00-TP002	
Internal Pressure	psig	***0***	***15***	***N/A***	Seismic Base Moment *	ft*lb	
External Pressure	psig	***3.61***	***15 (FV)***	***N/A***	Postweld Heat Treat	***Not required***	
Temperature	°F	***167***	***200***	***N/A***	Corrosion Allowance	inch	***0.04***
Min. Design Metal Temp.	°F	***-23***			Hydrostatic Test Pressure *	psig	

Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

11/25/03

EXPIRES: 07/28/05

This Bound Document Contains a total of 2 pages

REV	DATE	REASON FOR REVISION	PREPARER	CHECKER	REVIEWER	APPROVER
2	11/25/03	Issued for Permitting Use				for M. Hoffmann
1	11/17/03	Issued for Permitting Use	Jessica Jackson	Cliff Slater		Mark Hoffmann
0	9/17/02	Issued for Permitting Use	Jessica Jackson	Cliff Slater		Suzanne Kirk

11/26/03 11/26/03

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BECHTEL	**MECHANICAL DATA SHEET: VESSEL**	**PLANT ITEM No.** ***24590-LAW-MV-RLD-VSL-00003***

Materials of Construction

Component	Material	Minimum Thickness / Size	Containment
Top Head	***SA240 316 with max Carbon of 0.030%***	***See Drawing***	***Auxiliary***
Top Head Nozzles with Dip Pipe (Nozzles N20, N22A and N24 only)	***SB688 UNS N08367 or SB622 N10276***	***See Drawing***	***Auxiliary***
Top Head Nozzles without Dip Pipe	***SA240 316/SA182 F316 with max Carbon of 0.030%***	***See Drawing***	***Auxiliary***
Shell & Shell Nozzles N01 and N26	***SB688 UNS N08367 or SB622 N10276***	***See Drawing***	***Primary***
Bottom Head	***UNS N08367***	***See Drawing***	***Primary***
Support	***SA240 304 with max Carbon of 0.030%***	***See Drawing***	***N/A***
Jacket/Coils/Half-Pipe Jacket	***N/A***	***N/A***	***N/A***
Internals excl. Sprayers	***UNS N08367***	***See Drawing***	***N/A***
Sprayers	***316 SS***	***See Drawing***	***N/A***
"O" Ring Flanges for Top Head Nozzles	***SA182 F316 with max Carbon of 0.030%***	***See Drawing***	***N/A***
"O" Ring and Flat Gaskets	***EPDM***	***See Drawing***	***N/A***
Bolting (For Flanges)	***A193 Gr. B8 Cl.1***	***See Drawing***	***N/A***

Miscellaneous Data

Orientation	***Vertical***	Support Type	***Skirt***
Insulation Function	***Not Applicable***	Insulation Material	***Not Applicable***
Insulation Thickness (inch)	***Not Applicable***	Welds Surface Finish	***De-scaled as laid***

Notes

* To be determined by the vendor.

Note 1: Nozzle necks below the high operating liquid level are Primary, others Auxiliary.

Note 2: NDE for this vessel must meet requirements per para. 6.4.2 of specification no. 24590-WTP-3PS-MV00-TP001.

Note 3: This vessel is not subjected to thermal cycling or pressure cycling.

Note 4: Vessel volumes are approximate and do not account for manufacturing tolerances, nozzles, and displacement of internals

Note 5: Contents of this document are Dangerous Waste Permit affecting.

Note 6: Incorporated 24590-WTP-SDDR-PROC-03-0322 by design. Revised vessel external operating pressure. Other revisions for consistency.